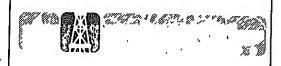
# Weekly Petroleum Status Report

Energy Information Administration U.S. Department of Energy





December 3, 1982



Includes September 1982 Monthly Petroleum Information (See Highlights and Page 2)

The "Weekly Petroleum Status Report" is published each Friday by the Energy Information Administration. The data contained in this report are based on company submissions for the week ending 7 a.m., the preceding Friday.

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The Weekly Petroleum Status Report (WPSR) provides timely information on the petroleum supply situation. It presents current statistics in the context of historical information, selected prices, and forecasts. The WPSR is intended to provide up-to-date information to the industry, the press, planners, policy-makers, consumers, analysts, and State and local governments.

### Highlights

### **Refinery Operations**

Crude oil inputs to refineries averaged 11.3 million barrels a day for the week ending November 26, 1982. Refinery capacity utilization averaged 67.9 percent during the week. During the four weeks ending November 26, 1982, motor gasoline production averaged 6.1 million barrels a day, and distillate fuel oil production averaged 2.9 million barrels a day.

### Stocks

On November 26, 1982, stocks of crude oil stood at 348.3 million barrels, which is about 5 percent below the level a year ago. Stocks of motor gasoline, at 227.5 million barrels, were about 8 percent below the level a year ago. Distillate fuel oil stocks stood at 178.2 million barrels, which is about 11 percent below the level a year ago. Stocks of residual fuel oil stood at 59.5 million barrels, which is about 27 percent below the level a year ago.

### **Imports**

Net imports of crude oil (including imports for the Strategic Petroleum Reserve) and petroleum products together averaged 4.1 million barrels a day for the four weeks ending November 26, 1982, about 18 percent below their average a year ago. Gross imports of crude oil (excluding the Strategic Petroleum Reserve) averaged 3.4 million barrels a day for the four-week period ending November 26, 1982.

### **Products Supplied**

Total petroleum products supplied averaged 14.7 million barrels a day for the four-week period ending November 26, 1982, which is about 6 percent lower than during the comparable period last year. Motor gasoline was supplied at a rate of 6.3 million barrels a day, which is about 2 percent below the level supplied a year ago. Distillate fuel oil was supplied at a rate of 2.4 million barrels a day, which is about 17 percent below the rate a year ago.

#### Crude Oil Price

This week Egypt announced official crude oil price reductions ranging between 25 and 85 cents a barrel on its crude oils, effective December 1, 1982. The price of Egyptian Suez Blend was cut 85 cents to \$31.75 a barrel with credit terms of 60 days.

As a result of the change noted above, the weighted average international price of crude oil is estimated to be \$33.01 a barrel, effective December 1, 1982.

### **Spot Market Product Prices**

For the week ending November 26, 1982, the average spot market price of 98 octane gasoline on the Rotterdam market increased 17 cents to \$36.28 a barrel; the gasoil price increased 6 cents to \$38.87 a barrel, and the price of residual fuel oil remained unchanged at \$26.88 a barrel. On the New York market, the average spot price of 89 octane regular gasoline decreased 69 cents to \$36.33 a barrel; the price of No. 2 heating oil decreased \$1.79 to \$37.06 a barrel, and the residual fuel oil price decreased 50 cents to \$27.50 a barrel.

### September Information from the 'Petroleum Supply Monthly'

During September 1982, domestic crude oil production was estimated to have averaged 8.7 million barrels a day, and gross crude oil imports, excluding imports to the Strategic Petroleum Reserve, averaged 3.5 million barrels a day. Refineries processed 12.1 million barrels of crude oil a day during September, operating at an average rate of 73.9 percent of total operable capacity. During September, total petroleum products supplied averaged 14.9 million barrels a day. Finished motor gasoline supplied averaged 6.5 million barrels a day, distillate fuel oil supplied averaged 2.5 million barrels a day, and residual fuel oil supplied averaged 1.5 million barrels a day.

NOTE: The Weather Summary is included in this week's issue.

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)) Used Dimertily and Losses	2005 E-5/9	-87		445 E-65A	47) 47)	
B)) Used Dimentily and Losses b)) Unaccounted-for Crude	-300	-68 270		96	-02 86	
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2) Other Hidhocorbon Input	F58	54	G.66	E52	511	1.8
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5)) Net Product Imports 4	877.2	11,240	-30.3	92577	11,, 231	-22.3
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0)) Mistor Gasolline 1)) Raphtha-type Jet Fuel	<b>6,293</b> RF1	6,395 193	-116 -63	65 , 553 35 2007	65,582	-0.7
2) kenosene-type det fael	ECS.	7/45/A	-03 7-11	7/494)	200 801	7.3 -1.4
3) Kennsene type det haen 3)	140	11511	-77.33	11,216	D20D	41.77
4) Onstallate Fuel Onl	2,397	2,187/2	-16.5	2,673	2,790	-41,38
5)) Resolution Fivel Unit	1,449	1,906	-24.0	l "GDA	d', 075	-1185-41
5) Other Oils	3°43B	3,117	3.5	3,19B	3,436	-5.9
7)) Total Products Suppliced	14,731	115,618	-5.7	15,232	16,014	-41.9
trolleum Stocks	0 m 44.40° 45°	·	unah dipah	nn llar desa		mangle finam
millions of Borrels)	11//46//8	QZ 11.11,	//19//802	111//216//261	Phreynous Week	r Yesem Algo
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Motor Gasoline (Exceptioning Sirk)	BAB 227.		R354.4 22b.2	366.7 246.4	-17 10	-4.8 -7.7
Naphtha-type Det Fivel	5		5.6	B. 7	3.3	-14-4
Remosane-type Jet Fuell	BA.		R33.5	355.4	2.8	-2.5
Kerosene	nu.		R11.6	12.4	2.0	-4.9
Unstallate Fuel Oal .	17/8		K17/6_4	200.3	1.0	-11.0
Restidual Fivel Onli	59.		RT2.1	31.1	-4-2	-2to.7
Wolfnanskad Onls Other Onls	nun.	.77	R111.83	1116.9	D-1	-4-4
	Elion.	5 6	E171.9	212.6	-4-3	-22.66
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Notal Stocks ((Excluding SAR))	11,141.	88 IRO	,152.4	1,277.4	-(0)-4)	-I(u)_6
		8 KO 2	, 152.4 236.3 ,438.7	1,277.4 221.2 1,438.7	-0.4 0.6 -0.6	-10-6 30-2 -4-6

RELIA revision.

E=Estimate based on monthly data.

Il Includes lease condensate.

<sup>2</sup> Net Imports = Gross Imports (line 3) + SPR Imports (line 4) - Exports (line 5).

<sup>3</sup> The Recentur 1960 crude off stocks level used in the calculation of the 1981 "Other Stocks Withdrawn or Added" is the 1981-basis crude off stock level published in the 1981 "Petroleum Supply Annual" (380.2 million barrels). The difference between the 1980- and the 1981-basis coule oil stock levels is the inclusion of crude oil in transit from Alaska in the figures for January 1981 forward. The Beca 1980 crude oil stock level shown on page 6 is the 1980-basis figure published in the 1980 "Petroleum Thre December Statement, Annual" and its consistent with other 1980 figures shown.

<sup>4</sup> Includes unfilmished oils and natural gas plant liquids for processing.

<sup>5</sup> Includes an estimate of minor product stock change based on monthly data.

<sup>6</sup> Includes coule off the transit to refineries.

<sup>7</sup> Includes stocks of finished motor gasoline and stocks of motor gasoline blending components.

<sup>8</sup> Included are stocks of all other oils such as aviation gasoline, natural gas liquids (including ethane), petrochemical feedstocks, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils. For the current two weeks, stocks of these minor products are estimated from monthly data. Sources:

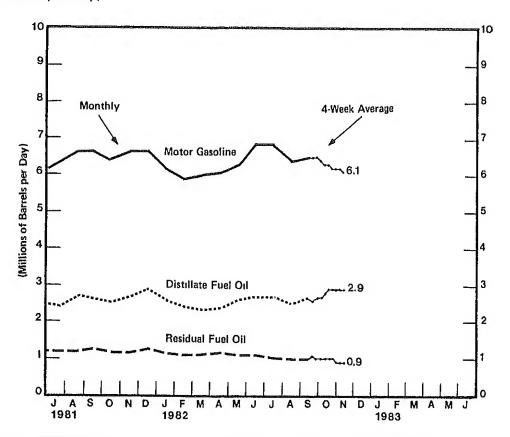
 <sup>1980:</sup> EIA, "Petroleum Statement. Annual (Final Summary)."
 1981: EIA, "Petroleum Supply Annual."
 January-September 1982: EIA, "Petroleum Supply Monthly."
 October 1, 1982-Current Week: Estimates based on EIA weekly data. Note: Due to independent rounding, individual product detail may not add to total. The percentages shown are calculated using unrounded numbers.

	pleum Supply ousands of Barrels per Day)	September 1982	Cumulative January - September 1982
	Crude Oil Supply		
(1)	Domestic Production <sup>1</sup>	8,733	8,670
(2)	Net Imports (Incl. SPR) <sup>2</sup>	3,418	3,219
(3)	Gross Imports (Excl. SPR)	3,463	3,291
(4)	SPR Imports	139	162
(5)	Exports	184	235
(6)	SPR Stocks Withdrawn (+) or Added (-)	-143	-174
(7)	Other Stocks Withdrawn (+) or Added (-)	395	86
(8)	Used Directly and Losses	-59	-65
	Unaccounted-for Crude	-218	77
(9)	Onaccounted-tor Grade		
(10)	Crude Oil Input to Refineries	12,126	11,813
	Other Supply	4.740	
(11)	NGL Production	1,513	1,537
(12)	Other Hydrocarbon Input	60	51
(13)	Crude Used Directly as Product	_56	_61
(14)	Processing Gain	504	514
(15)	Net Product Imports <sup>3</sup>	1,150	980
(16)	Gross Product Imports <sup>3</sup>	1,757	1,546
(17)	Product Exports 3	606	565
(18)	Product Stocks Withdrawn (+) or Added (-)3	-489	341
(19)	Total Product Supplied for Domestic Use	14,921	15,299
	Products Supplied		
(20)	Finished Motor Gasoline	6,507	6,551
(21)	Naphtha-type Jet Fuel	193	208
(22)	Kerosene-type Jet Fuel	842	797
(23)	Kerosene	108	120
(24)	Distillate Fuel Oil	2,514	2,688
(25)	Residual Fuel Oil	1,472	1,741
(26)	Other Oils	3,286	3,194
(27)	Total Products Supplied	14,921	15,299
	oleum Stocks	September 30,	
(Mill	ions of Barrels)	1982	
	Crude Oil (Excl. SPR) <sup>4</sup> Motor Gasoline <sup>5</sup>	339.9	
	Motor Garoline5	233.8	
	Naphtha-type Jet Fuel	6.4	
	Kerosene-type Jet Fuel	33.4	
	Kerosene Set Puel	9.8	
	Distillate Fuel Oil	161.2	
	Residual Fuel Oil	61.8	
	Unfinished Oils	117.8	
	Offinished Oils Other Oils	172.7	
	Total Stocks (Excl. SPR)	1,136.6	
	Crude Oil in SPR	277.9	
	Total Stocks (Incl. SPR)	1,414.5	
	Total atouks (Incl. or n)	17:1310	

R Imports (line 4)—Exports (line 5), ants, and natural gas plant liquids for processing.

i liquids (including ethane), i feedstock use, special naphthas, lube

# U.S. Refinery Production by Product (Millions of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980	W' ' '									************		
Motor Gasoline	7.0	6.9	6.5	6.3	6.3	6.6	6.4	6.4	6.4	6.1	6.5	6.6
Jet Fuel	1.0	1.0	1.0	1,0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Kerosene	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Distillate Fuel	3.0	2.8	2.6	2.5	2.5	2.6	2.7	2,5	2.7	2.6	2.7	2.9
Residual Fuel	1.8	1.8	1,6	1.6	1.5	1.6	1.5	1.4	1.5	1.5	1,6	1.7
1981 <sup>1</sup>												
Motor Gasoline <sup>2</sup>	6.7	6.3	6.2	6.1	6.1	6.2	6,4	6.6	6.6	6,4	6.6	6.6
Jet Fuel	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	1,0	0.9
Kerosene	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
Distillate Fuel <sup>2</sup>	3.0	2.8	2.5	2.4	2.5	2.5	2.4	2.7	2.6	2.5	2.7	2.9
Residual Fuel <sup>2</sup>	1.6	1.6	1.4	1.3	1.2	1.2	1,2	1.2	1.3	1.2	1,2	1.3
1982 <sup>1</sup>												
Motor Gasoline <sup>2</sup>	6.2	5.9	6.0	6.1	6.3	6.8	6.8	6.4	6.5			
Jet Fuel	0.9	1.0	1.1	1.0	0.9	0.9	1.0	1.0	1,0			
Kerosene	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
Distillate Fuel <sup>2</sup>	2.6	2.4	2.3	2.4	2.6	2.7	2.7	2.5	2.7			
Residual Fuel <sup>2</sup>	1.2	1.1	1.1	1.2	1.1	1.1	1.0	1.0	1.0			
Average for Four-	Week Pe	riod End	ina									
1982 <sup>1</sup>	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26			
Motor Gasoline <sup>2</sup>	6.5	6.5	6.4	6.3	6,3	6.2	6.2	6.2	6.1	****	····	-
Jet Fuel	1.0	1.0	6.4 1.0	1.0	1,0	1.0	1.0	1.0	1.0			
Kerosene _	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0,2			
Distillate Fuel <sup>2</sup>	2.6	2.7	2.7	2.8	2.9	2.9	2.9	R2.9	2.9			
Residual Fuel <sup>2</sup>	1.1	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9			
HOSIUMAI I MOI	111	1.0	110	1,0	1.0	1.0	0.0	010	0.0			

R=EIA revision.

1 Production statistics represent net production (i.e., refinery output minus refinery input)

2 Production statistics for 1981 and 1982 should not be directly compared with those for prior years because, in January 1981, EIA modified its definitions for motor gesoline, distillate fuel oil, and residual fuel oil. See Appendix O for further explanation.

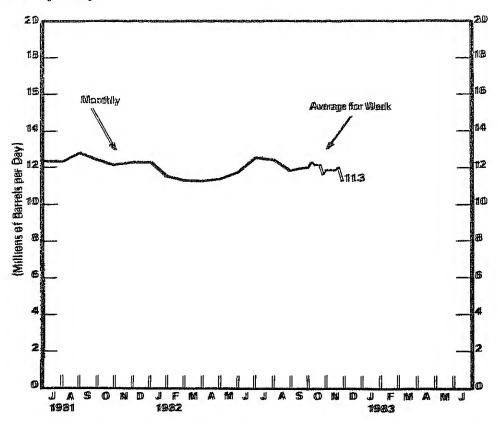
Source: • 1980. EIA, "Petroleum Statement, Annual (Final Summary)."

• 1981. EIA, "Petroleum Supply Annual."

• January—September 1982. EIA, "Petroleum Supply Monthly."

• October 1, 1982—Current Week. Four-week averages based on EIA weekly data

# Coude Oil Inputs to Refinences (Millions of Berrels per Day)



Year	Jan	Feb	Mar	Appr	May	Jona	Jul	Aug	Sep	Oct	Nov	Dec
1980	14.3	14.2	13.7	135	13.3	13.7	13.3	13.0	13.3	12.8	113.1	13.6
1981	13.2	129	12.4	12.1	123	12.4	12.3	129	125	12.1	12.3	12.3
1982	11.6	111.33	117_3	111.4	111.28	125	12.4	11.9	112.11			
Average fo 1982	w Week Em 10/1	Ting: 10/8	10/15	10/22	10/29	11/5	11//12	11/19	11/26			
	12.3	12.1	12.1	111.66	111,28	111.88	111.28	120	11.3			

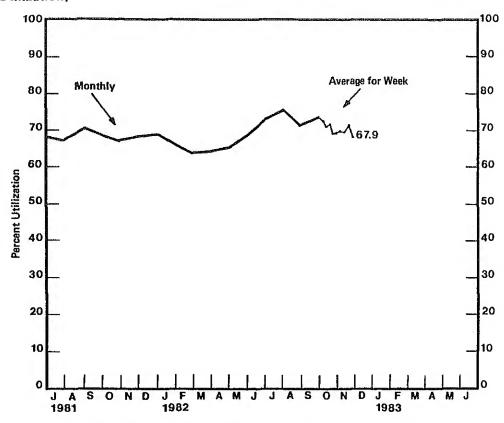
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FEET EIA, "Randlaum Supply Annual."

Llandry-September ISEE EIA, "Randlaum Supply Monthly "

Outbler 1, 1982-Current Wark Extracts based on EIA weekly data</sup> 

# Refinery Capacity Utilization (Percent Utilization)



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980	82.1	79.9	76.8	75.7	74.8	77.0	74.5	72.7	73.6	70.6	73.0	75.5
1981	72.5	70.8	67.7	65.7	67.2	68.1	67.4	70.6	68.4	67.0	68.2	69.2
1982	66.3	64.6	64.9	65.5	68.0	73.6	75.2	71.6	73.9			
Average fo	or Week En 10/1	ding: 10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26			
	72.8	71.8	72.1	69.5	69.9	70.0	69.9	R72.3	67.9			

R=EIA revision

H\*E: A revision

Source: • 1980: EIA, "Petroleum Statement, Annual (Final Summary),"

• 1981: EIA, "Petroleum Supply Annual,"

• January—September 1982 EIA, "Petroleum Supply Monthly,"

• October 1, 1982—Current Week: Estimates based on EIA weekly data.

# Stocks of Crude Oil and Petroleum Products, U.S. Totals (Millions of Barrels)

Year/Product	Jan	Feb	Mar	Арг	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980												
Crude Oil 2,3	357 5	366 0	367 4	379,8	383.4	381.5	378.7	387 2	376.4	378 5	373,1	358 2
Motor Gasoline	262 1	274.4	282.7	271.8	263.1	264 8	260 7	259.0	258 1	246 4	257.2	261.3
Jet Fuel	38 4	38 3	38 7	39,3	413	42 3	40 9	40 3	42.2	43.1	43 9	420
Kerosene	14 0	133	13 1	13 4	138	139	143	133	129	125	127	116
Distillate Fuel Oil	212 4	191 6	177 8	177 2	183.4	196,5	213,8	226.3	232 4	225,7	222 4	205 1
Residual Fuel Oil	97 2	91 0	88 3	85.3	87.7	87.8	85.6	86,9	87,9	91,0	93 2	91 8
Unfinished Oils	112 4	111 3	115,9	123 5	130.6	133.1	131,6	129,6	132.1	131.1	1263	123.9
Other Oils	165 9	166.3	172.7	185 6	192.4	1998	208 5	214.7	212.4	204 8	201 4	190 5
Total Stocks (Excl. SPR)	1,260 0	1,252 1	1,256 7	1,275.9	1,295 6	1,319 7	1,334 2	1,357.4	1,354.3	1,333.0	1,330 1	1,284.4
Crude Oil in SPR	91 2	91.2	91 2	91 2	91.2	91.2	91.2	91.2	92.8	96.6	102 3	107,8
Total Stocks (Incl. SPR)	1,351 2	1,343 3	1,347.8	1,357.1	1,386.8	1,410.9	1,425.4	1,448.6	1,447 2	1,429 7	1,432 4	1,392 2
1981												
Crude Oil <sup>2</sup>	374.0	378 2	393.0	397 5	393.7	384.7	385.9	362.0	356 0	364 0	366 0	363 5
Motor Gasolina4	276.1	284 0	285.0	272 1	258.3	241 6	227 7	233 3	237.1	236 1	248 4	253.0
Jet Fuel	39.5	38 6	390	40,4	44.5	44.9	44.8	44.7	43 1	427	420	41.1
Kerosene Distributo Fuel	10.5	10 6	11.2 164 3	12.0 164 6	12,8	13 4	13.3	13.8 200.2	13,9 207 3	12,7 201,2	12 3 200 1	11,0
Distillate Fuel	179 4	172.5	748		171.8	179 9	186.3					191,6
Residual Fuel	82.1	77.9 122 3	126.2	72.9 126 5	78.1	69 4 126.1	69 3	74.9 124 5	80.2	79,9	81.4	78.0
Unfinished Oils	121.5				126.3		126.1		118.4	119.5	1164	111 3
Other Olis	192 2 1.275 3	188 5 1,272,5	186 9 1,280,3	194.5 1,280 5	202.7 1.288.3	207.1 1.267.1	212.1 1.265.4	219.0 1,272.5	220.7 1,276 7	214 0 1,270.0	212 3 1,278 9	203.9 1.253.3
Total Stocks (Excl. SPR)			1,280,3	134.2	150.1		1,203.4	184.7	199 2		222.5	230.3
Crude Oil in SPR Total Stocks (Incl. SPR)	112 5 1,387.8	116 1 1,388,5	1,401.2	1,414.6	1,438,3	163,1 1,430,2	1,438.5	1,457 2	1,476,0	214.8 1,484.8	1,501 5	1,483,6
rotal glocks finel. GFR)	1,007.0	1,000,0	1,401,2	1,41410	1,430.0	1,450.2	,,430,0	1,407 2	1,470,0	1,404.0	1,001 0	1,405,0
1982												
Crude Oil 2	370 9	371 0	365,7	355 5	348.5	342 B	344,6	351.8	339 9			
Motor Gasoline <sup>4</sup>	262.1	262 1	247 9	2228	214.9	219.7	226 0	226 0	233.8			
Jet Fuel	37 2	37 0	42 5	44 1	418	40 1	398	408	39.7			
Kerosene	96	91	8.8	96	89	92	9 1	95	98			
Distillate Fuel	166 0	146 7	127 7	108 B	114.5	124 5	148 1	168 9	161 2			
Rosidual Fuel Oil	68 2	58 1	57.3	53 6	59 1	60.5	59 0	528	618			
Unfinished Oils	116 7	1169	1158	118 9	117.9	117.5	1178	1160	1178			
Other Oils	195 0	189 3	186 6	180.9	182.6	183.7	182.4	178 1	172 7			
Total Stocks (Excl. SPR)	1,225 6	1,190 2	1,152 4	1,094.3	1,088.4	1,098 1	1,126 8	1,133,8	1,136 6			
Crude Oil in SPR	236 3	241 2	248.5	255 5	261.0	264 1	267.2	273.6	277 9			
Total Stocks (Incl. SPR)	1,460.9	1,431 4	1,400.9	1,349.9	1,349.4	1,362 3	1,393.9	1,407 4	1,414 5			
Week Ending: 1982	10/1	10/8	10/15	10/22	10/00	44 lm	44/40	44140	44/00			
	10/1	10/0	10/10	10/22	10/29	11/6	11/12	11/19	11/26			
Crude Oil 2	357 4	357 9	349 6	357 0	355 7	354 2	346 5	R354 4	348 3			
Motor Gasolina <sup>4</sup>	230 6	231 2	229 0	228 5	228 7	227,5	227 2	225.2	227.5			
Jet Fuel	39 7	37 8	38 9	40 1	39 9	40 7	40 9	R39.2	40.2			
Kerosene	10.2	10 7	10.7	10 5	10.5	110	11,2	R11.6	11.8			
Distillate Fuel Oil	154 5	158.2	161 6	162 9	163.6	167 8	171 5	R176.4	178.2			
Residual Fuel Oil	60 8	60.4	60.9	61.7	61.7	61.9	62.9	R62.1	59,5			
Unfinished Oils	118 8	1190	117 6	115.2	113.3	112.4	114 4	R111.8	111.7			
Other Oils <sup>5</sup>	E187 4	E186 1	E184 8	E175.4	E174 1	E173.1	E172 5	E171.9	E164.5			
Total Stocks (Excl. SPR)	1,169 3	1,161 3	1,163,1	1,151.3	1,147.6	1,148 6	1,147 1	R1,1524	1,141.8			
Grude Oil In SPR Total Stocks (Incl. SPR)	277.8	278 7	280.8	283.4	284 3	284 9	286 2	286 3	288 2			
	1,437 0	1,440.0	1,433.9	1,434 7	1,431.8	1,433,5	1,433,3	81,438.7	1,430.0			

R=EIA revision

E=Estimated. See definition of "Stock Change (Relined Products)" for explanation

1 Product stocks include those stocks held at refineries, in pipelines, and at major bulk terminals. Stocks held at natural gas processing plants are included in "Other Oils" and in totals All stock levels are as of the end of the period

2 Crude oil stocks include those stocks held at refineries, in pipelines, lease tanks, and in transit to refineries, and do not include those hold in the Strategic Petroleum Reserve.

3 The December 1980 crude oil stock level shown here is from the 1980 "Petroleum Statement, Annual" and is not the same as the 1981-basis crude oil stock level used in the calculations for the U.S. Petroleum Balance Sheet (see footnote 3, page 1).

4 Motor gasoline stocks are the sum of stocks of finished motor gasoline and stocks of motor gasoline blending components, shown in the "Petroleum Supply Annual" and the "Petroleum Supply Monthly." The 1982 weekly motor gasoline stocks statistics are comparable to the 1981 and 1982 monthly statistics.

5 Weekly totals for stocks of other oils, which include aviation gasoline, natural gas liquids including ethene, petrochemical feedstocks, special naphthas, lube oils, wax, coke, asphalt, road oil, and miscellaneous oils are estimated using monthly data.

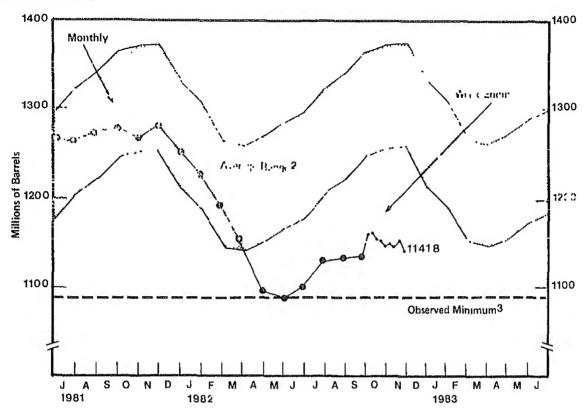
Source = 1980 EIA, "Petroleum Supply Annual"

• January—September 1982: EIA, "Petroleum Supply Monthly."

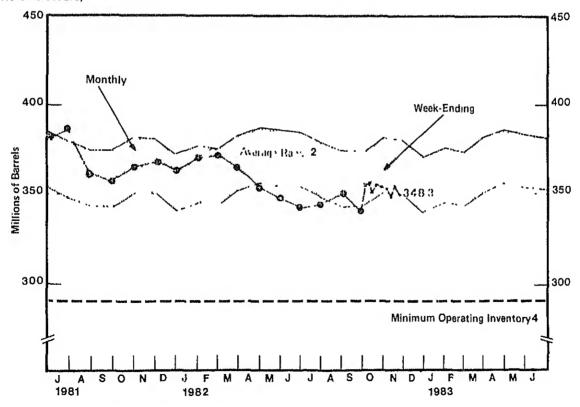
• January—September 1982: EIA, "Petroleum Supply Monthly."

• October 1, 1982—Current Week' Estimates based on EIA weekly data.

# Stocks of Crude Oil and Petroleum Products, U.S. Total (Millions of Barrels)



Stocks of Crude Oil, U.S. Total (Millions of Barrels)



<sup>1</sup> Excludes stocks hald in the Stretegic Petroleum Reserve and includes crude oil in transit to refineries.
2 Average level, width of average range, and observed minimum are based on three years of monthly data. January 1975—December 1981, See Appendix B for further explanation.
3 The observed minimum for total stocks in the last three year period, July 1979—June 1982, was 1088 4 million barrels. It occurred in May 1982. See Appendix B for further explanation.

<sup>4</sup> The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for crude oil to be 290 million barrels. See Appendix B for further explanation.

Source: • Ranges and Seasonal Patterns 1975—1980, EIA, "Petroleum Statement, Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual."

Monthly data: 1981, EIA, "Petroleum Supply Annual," January—September 1982, EIA, "Petroleum Supply Monthly"
 October 1, 1982—Current Week: Estimates based on EIA weekly data.

# Stocks of Motor Gasoline by District <sup>1</sup> (Millions of Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980			- Annual (Cr)				····					
East Coast (PAD 1)	70,2	<b>75 0</b>	73.7	74.8	75.2	76.4	72.9	72.8	75.7	69,9	69.2	71.1
Midwest (PAD 2)	83.1	85.0	89.0	83,3	76.9	79.1	78.9	76.8	77.5	70.9	72.8	76.9
Gulf Coast (PAD 3)	69.8	73.7	80.9	75.7	74.3	73.2	73 2	71.4	68.3	69,8	75.8	73.8
Rocky Mountain (PAD 4)	8.8	9.3	9.7	9.4	8.9	8.4	6.6	6,5	6.2	6.6	7.8	8,6
West Coast (PAD 5)	30.3	31.4	29.4	28.6	27.8	27.9	29.1	30.2	30.5	29.2	31.6	31,0
Total U.S. <sup>2</sup>	262 1	274.4	282.7	271.8	263.1	264.8	260.7	259.0	258.1	246.4	257.2	261.3
1981												
East Coast (PAD 1)	71.7	74.2	79.5	77.9	73.1	69.5	62.7	64.3	69 6	69.6	69.7	69.5
Midwest (PAD 2)	86.0	90 4	89.7	84.2	80.1	72.4	65.9	66 7	65.3	66.0	69.2	72.6
Gulf Coast (PAD 3)	77.2	79.6	78.5	76.2	72.2	65.9	64.0	68.6	68.5	65.0	70.6	69.5
Rocky Mountain (PAD 4)	9.7	10.3	10.2	9.4	8.6	7.4	6.5	6.0	5.8	6.3	7.7	8.5
West Coast (PAD 5)	31.5	29.5	26.9	24.4	24.3	26.3	28.6	27.8	27.9	29.2	31.2	32.9
Total U.S?	276.1	284.0	285.0	272.1	258.3	241.6	227.7	233,3	237.1	236.1	248.4	253.0
1982												
East Coast (PAD 1)	71.7	69.6	67.1	61.7	63.6	66.0	63.1	62.4	63.5			
Midwest (PAD 2)	78.6	79.1	74.8	63.2	56.8	56.6	62.6	65.8	69.5			
Gulf Coast (PAD 3)	70.2	69 2	68.0	63.4	63.6	65.0	66.0	64.4	67.4			
Rocky Mountain (PAD 4)	9.6	9.9	10.1	8.9	7.7	6.5	5.8	5.5	5.7			
West Coast (PAD 5)	32 0	34.3	27.8	25.5	23.3	25.7	28.4	27.7	27.7			
Total U.S. <sup>2</sup>	262.1	262.1	247.9	222.8	214.9	219.7	226.0	226.0	233.8			
Week Ending:												
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26			
East Coast (PAD 1)	63.1	62.1	62.0	62.6	62.6	62.8	63,6	R62.8	65.0			· · · · · · · · · · · · · · · · · · ·
Midwest (PAD 2)	70.0	70.7	70.7	70.3	68.3	67.0	65.5	R65.7	66.2			
Gulf Coast (PAD 3)	66.0	66.9	64.5	64.1	65.7	66.1	66.1	64.6	65.0			
Rocky Mountain (PAD 4)	5.5	5.7	5.8	5.8	5.9	6.0	6.2	6.4	6.5			
West Coast (PAD 5)	25.9	25.8	26.0	25.7	26.2	25.6	25.9	R25.7	24.8			
Total U.S. <sup>2</sup>	230 6	231.2	229.0	228.5	228.7	227.5	227.2	225.2	227.5			

R-EIA revision

1 Districts are Petroleum Administration for Dafense (PAD) Districts

2 PAD district data may not add to total due to independent rounding

Source • 1980 Totals EIA, "Petroleum Statement, Annual (Final Summary),"

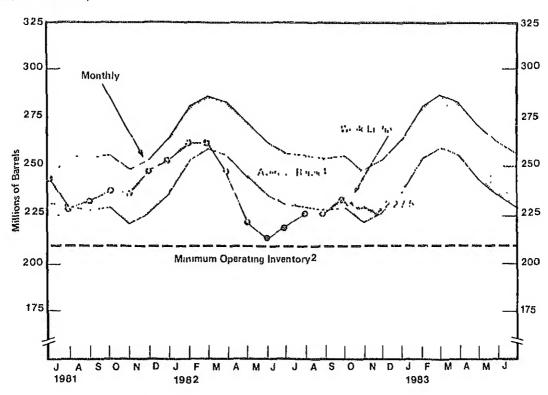
• 1980 Regional Data Unpublished data hased on "Petroleum Statement, Annual (Final Summary),"

• 1981 EIA, "Petroleum Supply Annual"

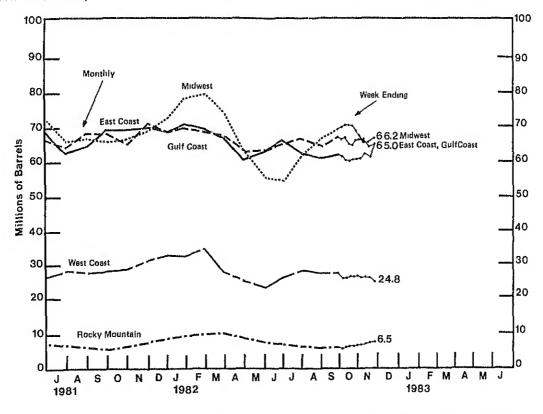
• January—Soptember 1982 EIA, "Petroleum Supply Monthly"

• October 1, 1982—Current Week Estimates based on EIA weekly data

Note Mator gasoline stocks are the sum of finished motor gasoline and stocks of motor gasoline blending components



Stocks of Motor Gasoline by District (Millions of Barrels)



<sup>1</sup> Average level and width of average range are based on three years of monthly data
January 1975—December 1976 and January 1978—December 1981 See Appendix B for further explanation
2 The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation
to be 210 million barrels. See Appendix B for further explanation

Source: • Ranges and Seasonal Patterns 1976—1980, EIA, "Petroleum Statement Annual (Final Stummary)," 1981, EIA, "Petroleum Supply Annual."

• Monthly Date 1981, EIA, "Petroleum Supply Annual, January—September 1982, EIA, "Petroleum Supply Monthly."

• October 1, 1982—Current Week: Estimatos based on EIA weekly data,

Note: Motor gasoline stocks are the sum of stocks of finished motor gasoline and stocks of motor gasoline blending components

# Stocks of Distillate Fuel Oil by District<sup>1</sup> (Millions of Barrels)

Year/District	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980	· · · · · · · · · · · · · · · · · · ·			<del></del>								
East Coast (PAD 1)	92 1	77.9	67.1	71.4	78.0	85.8	96.0	104.1	108.2	106.5	103.3	90.3
Midwest (PAD 2)	65.5	61.1	57,3	55.7	54.3	56.8	60.2	62.4	62.6	57.4	58.2	58.5
Gulf Coast (PAD 3)	38.7	36.1	36.8	33.5	34.7	38.4	41.2	42.9	45.5	46.1	44.2	39.8
Rocky Mountain (PAD 4)	3.5	3.7	3.9	3.9	3.8	3.5	3.9	3.9	3.6	3.3	3,3	3.4
West Coast (PAD 5)	12.6	12.8	12.8	12.8	12.6	12.1	12.6	13.0	12.4	12.3	13.4	13.1
Total U.S. <sup>2</sup>	212.4	191,6	177.8	177.2	183.4	196.5	213.8	226,3	232.4	225.7	222,4	205.1
1981												
East Coast (PAD 1)	71.9	69.8	64.7	64.4	68.2	73.8	81,3	86.3	92.0	94.8	96.0	87.4
Midwest (PAD 2)	57.7	56.1	52.5	52.4	50.5	48.7	49.8	54.1	54.3	51.0	51.6	50.0
Gulf Coast (PAD 3)	34.0	32.3	32.4	34 7	39.2	42.9	40.7	44.5	44.8	39.8	36,7	35,5
Rocky Mountain (PAD 4)	3.4	3.3	3,3	2.9	3.2	3.4	3,7	3.8	3.6	3.3	3.6	3.9
West Coast (PAD 5)	12.4	11.1	11.4	10.3	10.7	11.1	10.8	11.4	12.5	12,3	12.3	14.7
Total U.S. <sup>2</sup>	179.4	172,5	164.3	164.6	171.8	179.9	186.3	200.2	207.3	201.2	200.1	191,5
1982												
East Coast (PAD 1)	69.2	58.4	44.9	35.1	39.2	44.2	57.4	63.9	68.0			
Midwest (PAD 2)	47.4	43.8	40.2	31.2	31.2	34.1	42.6	45.5	45.5			
Gulf Coast (PAD 3)	30.8	26.7	27.5	28.2	31.0	32.5	34.2	35.8	34.1			
Rocky Mountain (PAD 4)	4.1	3.9	3.7	3.1	2.8	3.0	3.4	3,5	3.5			
West Coast (PAD 5)	14.5	13.9	11.4	11.1	10.3	10.7	10.6	10.2	10,1			
Total U.S. <sup>2</sup>	166.0	146.7	127.7	108.8	114.5	124.5	148.1	158,9	161,2			
(A)												
Week Ending: 1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26			
East Coast (PAD 1)	63.7	67.0	68.6	69.6	71.7	75.9	77.6	R82.1	83.9			
Midwest (PAD 2)	44.6	45.1	46.4	46.3	45.5	45.1	44.9	R44.6	45.8			
Gulf Coast (PAD 3)	33.4	33.4	34.1	34.9	34.5	35.0	36.6	R37.5	35.6			
Rocky Mountain (PAD 4)	3.4	3.3	3.4	3.3	3.2	3.4	3.3	3.0	3,3			
West Coast (PAD 5)	9.3	9.4	9.1	8.8	8.7	8.5	9.1	R9.2	9.6			
Total U.S. <sup>2</sup>	154.5	158.2	161.6	162,9	163.6	167.8	171.5	R176.4	178.2			

)

R-EIA revision

1 Districts are Petroleum Administration for Defense (PAD) Districts

2 PAD district data may not add to total due to independent rounding

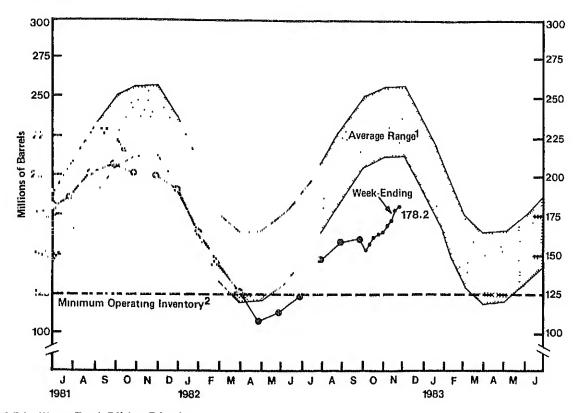
Source • 1980 Totals EIA, "Petroleum Statement, Annual (Final Summary)"

• 1980 Regional Data Unpublished data based on "Petroleum Statement, Annual (Final Summary)"

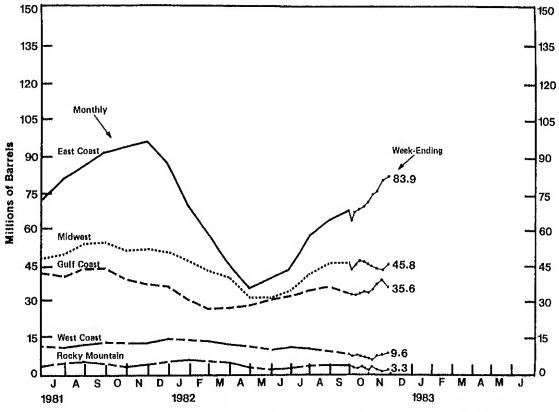
• 1981: EIA, "Petroleum Supply Annual"

• January—September 1982 EIA, "Petroleum Supply Monthly."

• October 1, 1982—Current Week Estimates based on EIA weekly data



Stocks of Distillate Fuel Oil by District (Millions of Barrels)



<sup>1</sup> Average level and width of average range are based on three years of monthly data. July 1979-June 1982. The seasonal pattern is based on seven years of monthly data:

<sup>1</sup> Average level and width of average range are based on three years of monthly data.

January 1975—December 1981. See Appendix 8 for further explanation.

2 The National Petrolaum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for distillate fuel oil to be 125 million barrels. See Appendix 8 for further explanation.

Source: • Ranges and Seasonal Patterns 1975—1980, Eld, "Petrolaum Stutement Annual (Final Summary)," 1981, Eld, "Petrolaum Supply Annual."

• Monthly Data: 1981, Eld, "Petrolaum Supply Annual, January—September 1982, Eld, "Petrolaum Supply Monthly."

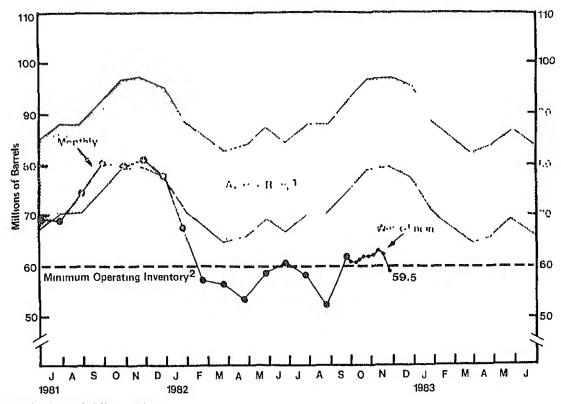
• October 1, 1981—Current Week, Estimates based on Eld weekly data.

Stocks of Residual Fuel Oil by District<sup>1</sup> (Millions of Barrels)

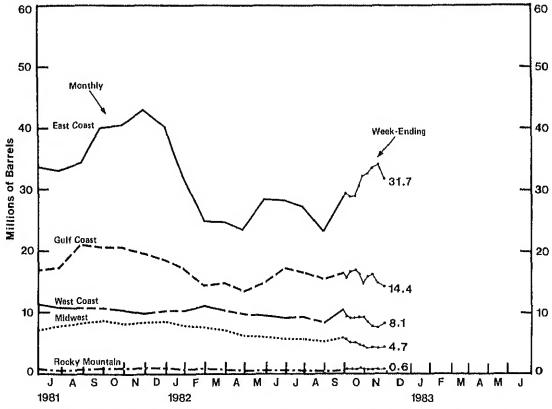
Year/District	,lan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980											40 5	
East Coast (PAD 1)	49.0	42.6	43.0	43.8	43.4	45,1	44.0	43.6	43.8	45.9	46.5	45.4
Midwest (PAD 2)	12.7	12.5	12.0	10.7	10.8	10.9	98	9.3	8,9	9.0	8.8	9.1
Gulf Coast (PAD 3)	22.1	22.7	19.5	17.3	20.1	18.9	19.4	21.0	22.3	23.0	25.2	23.8
Rocky Mountain (PAD 4)	1.0	1.0	0.9	0.9	8.0	0.8	0.9	0.9	0.9	0.8	0.9	0.8
West Coast (PAD 5)	12.4	12.1	12.8	12.5	12.6	12.0	11.6	12.0	12.0	12.3	12.1	12.6
Total U.S. <sup>2</sup>	97.2	91.0	88.3	85.3	87.7	87.8	85.6	86.9	87.9	91.0	93.2	91.8
198 <b>1</b>									40.0	40.4	40.0	40.4
East Coast (PAD 1)	39.0	38.5	37.3	36.3	38.2	33,6	33.0	34.4	40.0	40.4	43.0	40.1
Midwest (PAD 2)	9.2	9.0	7.9	7.3	7.1	7.0	7.7	8.1	8.5	8.0	8,2	8.3
Gulf Coast (PAD 3)	21.8	19.7	19.4	19.1	21.7	17.0	17.4	21.2	20.4	20.4	19.7	18.7
Rocky Mountain (PAD 4)	0.8	0.7	0.6	0.5	0.6	0.6	0.5	0.6	0.7	0.7	0.7	0.7
West Coast (PAD 5)	11.4	10.1	9.7	9.7	10.5	11.2	10.7	10.7	10.7	10.4	9.8	10.2
Total U.S. <sup>2</sup>	82.1	77.9	74.8	72.9	78.1	69.4	69.3	74.9	80.2	79.9	81.4	78.0
1982												
East Coast (PAD 1)	32.2	24.9	24.8	23.5	28.3	28.2	27.1	23.1	29.0			
Midwest (PAD 2)	7,7	7.3	7.0	6,2	6.0	5.7	5.7	5.3	5.8			
Gulf Coast (PAD 3)	17.4	14.4	14.7	13,5	14.9	17.1	16.4	15.6	16.2			
Rocky Mountain (PAD 4)	0.6	0.7	0.6	0.5	0.5	0.5	0.5	0.4	0.5			
West Coast (PAD 5)	10,2	11.0	10.3	9.9	9.4	9.2	9.3	8.4	10.4			
Total U.S. <sup>2</sup>	68.2	58.1	57.3	53.6	59.1	60.5	59.0	52.8	61.8			
Week Ending:												
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26			
East Coast (PAD 1)	29.5	28.9	29,0	30.7	32.1	32,5	33.8	R34.4	31.7			
Midwest (PAD 2)	5.6	5.1	5.1	4.9	4.8	4,6	4.7	R4.6	4.7			
Gulf Coast (PAD 3)	15.7	16.5	17.1	16.1	14.9	15.8	16.1	R14.9	14.4			
Rocky Mountain (PAD 4)	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6			
West Coast (PAD 5)	9.5	9.2	9.2	9.3	9.3	8.4	7.8	R7.6	8.1			
Total U.S. <sup>2</sup>	60.8	60.4	60.9	61.7	61.7	61.9	62.9	R62.1	59.5			

R=EIA revision.

1 Districts are Petroleum Administration for Defense (PAD) Districts
2 PAD district data may not add to total due to Independent rounding
Source. • 1980 Totals EIA, "Petroleum Statement, Annual (Final Summary)"
• 1980 Regional Data Unpublished data based on "Petroleum Statement, Annual (Final Summary)"
• 1981 EIA, "Petroleum Supply Annual"
• January—September 1982, EIA, "Petroleum Supply Monthly"
• October 1, 1982—Current Week Estimates based on EIA weekly data



Stocks of Residual Fuel Oil by District (Millions of Barrels)



<sup>1</sup> Average level and width of average range are based on three years of monthly data:

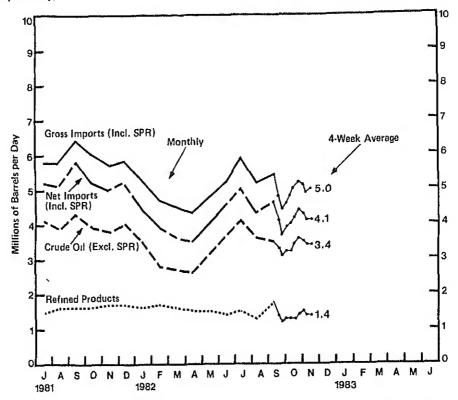
January 1975—December 1981. See Appendix 8 for further explanation.

2 The National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. In their 1979 study, they defined this inventory level for residual fuel oil to be 60 million barrels. See Appendix 8 for further explanation.

Source. • Ranges and Seasonal Patterns 1975—1980, EIA, "Petroleum Statement. Annual (Final Summary)," 1981, EIA, "Petroleum Supply Annual"

Appendix Design 1991. EIA ("Petroleum Statement Annual England Statement Annual England Statement Sta

Monthly Data 1981, EIA, "Petrolaum Supply Annual, January-September 1982, EIA, "Petrolaum Supply Monthly,"
 October 1, 1982~Current Week: Estimates based on EIA weekly data.



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980												
Crude Oil (Excl. SPR)	6.4	6.0	5.7	5.6	5.1	5.5	4.8	4.8	4.7	4.6	4.5	4.9
SPR	0	0	0	0	0	0	0	0	0.1	0.1	0.1	0.2
Refined Products	2.2	1.9	1.8	1.5	1.5	1.4	1,4	1.4	1.5	1.6	1.7	1.8
Total (Gross Incl. SPR)	8.6	7.9	7.5	7.1	6.6	6.9	6.3	6.2	6.2	6.4	6.4	6.9
Total Exports	0.5	0.6	0.6	0.4	0.6	0.7	0.5	0.3	0,6	0.6	0.5	0.6 6.3
Total (Net Incl. SPR)	8.0	7.4	6.9	6.7	6.0	6.2	5.7	5.9	5.7	5,8	5.9	0.3
1981												
Crude Oil (Excl. SPR)	4,8	4.8	4.4	4.1	3.9	3.7	4.1	3.9	4.3	3.9	3.8	4.0
SPR	0,1	0.1	0.1	0.3	0.4	0.3	0.2	0.3	0.4	0.5	0,3	0.2
Refined Products	1.9	1.9	1.5	1.3	1.5	1.4	1.5	1.6	1.6	1.6	1.7	1.7
Total (Gross Incl. SPR)	6,8	6.8	6.0	5.7	5.8	5.4	5.8	5.8	6.4	6.0	5.7	5.8
Total Exports <sup>1</sup>	0.6	0.6	0.6	0.6	0.6	0.4	0.6	0.6	0.5	0.7	0.7	0.7
Total (Net Incl. SPR)	6.3	6.2	5.4	5.1	5.2	5.0	5.2	5.1	5,8	5.2	5.0	5.2
1982												
Crude Oil (Excl. SPR)	3.5	2.8	2.7	2.6	3,1	3.7	4.1	3.6	3.5			
SPR	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1			
Refined Products	1.6	1.7	1.6	1.5	1.5	1.4	1.5	1.3	1.8			
Total (Gross Incl. SPR)	5.2	4.7	4.5	4.3	4.8	5.2	5.8	5.2	5.4			
Total Exports <sup>1</sup>	8.0	0.8	0.9	8.0	8.0	0.7	0.7	0.9	8.0			
Total (Net Incl. SPR)	4.4	3.9	3.6	3.5	4.0	4.5	5.0	4.3	4.6			
Average for Four-Week Per	ind Endin	a.										
1982	10/1	ຶ່ 10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26	_		
Crude Oil (Excl. SPR)	3.3	3,1	3.2	3.2	3.4	3.6	3.5	3.4	3.4			
SPR	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1			
Refined Products	1.4	1,2	1.3	1.3	1.3	1.4	1.5	1.4	1.4			
Total (Gross Incl. SPR)	4.8	4.4	4.6	4.8	5.0	5.2	5.1	4.9	5.0			
Total Exports	E0.7	E0.7	E0.7	E0.8	E0.8	E0.8	E0.9	E0.9	E0.8			
Total (Net Incl. SPR)	4.1	3.7	3.9	4.0	4.2	4.4	4.3	4.1	4.1			

Includes exports of crude oil and retined perfoleum products

Exports of crude oil and retined perfoleum products

Exports of crude oil and retined perfoleum products

Exports of crude oil are not prohibited these territories are U.S. possessions,

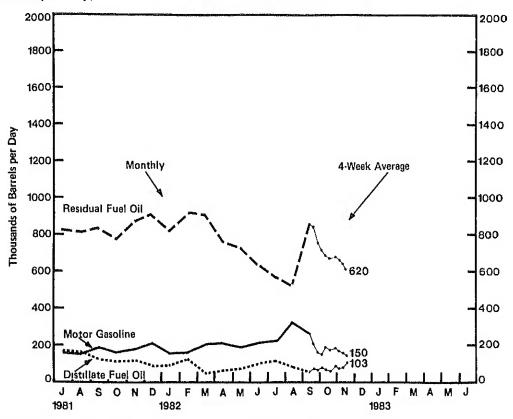
Source: • 1980 EIA, "Petroleum Supply Annuat,"

• January—September 1982: EIA, "Petroleum Supply Monthly"

• October 1, 1982—Current Week Four week awarages based on EIA weekly data.

Note: Detail data may not add to total due to independent rounding

# **Gross Imports of Petroleum Products by Product** (Thousands of Barrels per Day)



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980						*		**************************************				************
Motor Gasoline <sup>7</sup>	141	154	155	155	132	148	149	141	106	152	126	121
Jet Fuel	96	43	100	110	73	86	93	67	77	86	63	60
Distillate Fuel Oil	179	237	193	154	126	108	117	77	101	115	133	16 <b>6</b>
Residual Fuel Oil	1,338	1,122	976	775	812	749	787	875	906	875	1,024	1,025
Other <sup>2</sup>	437	376 <sup>-</sup>	333	315	330	323	267	230	343	384	380	438
1981												
Motor Gasoline <sup>1</sup>	158	121	200	209	177	197	169	167	196	169	189	212
Jet Fuel	15	38	76	55	47	68	35	47	46	14	9	7
Distillate Fuel Oil	273	325	147	116	179	225	179	174	129	119	124	95
Residual Fuel Oil	1,015	954	699	584	741	540	830	819	841	786	880	916
Other <sup>2</sup>	434	462	385	366	345	344	309	380	389	492	492	476
1982												
Motor Gasoline <sup>1</sup>	158	165	202	208	199	218	237	334	273			
Jet Fuel	10	62	39	47	31	3	15	26	30			
Distillate Fuel Oil	96	130	48	59	74	100	124	79	59			
Residual Fuel Oil	821	928	910	762	738	643	576	519	871			
Other <sup>2</sup>	500	456	405	397	429	482	566	378	524			
Average for Four-Wee	ek Period	Endina:										
1982	10/1	10/8	10/15	10/22	10/29	11/15	11/12	11/19	11/26			
Motor Gasoline <sup>1</sup>	211	169	159	194	184	192	178	R168	150			
Jet Fuel	28	20	28	26	23	25	17	R18	28			
Distillate Fuel Oil	75	67	79	71	62	84	78	R79	103			
Residual Fuel Oil	848	758	716	695	671	679	660	R639	620			
Other 2	195	218	273	324	400	462	535	R541	539			

R=EIA revision.

H=E:IA revision.

1 includes imports of finished motor gasoline and imports of motor gasoline blanding components.

2 includes imports of kerosene, unfinished oils, and other oils.

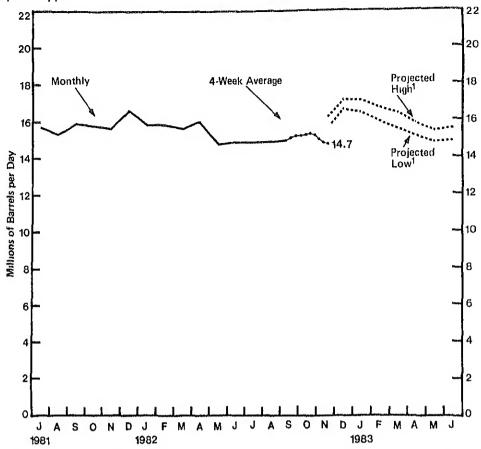
Source: • 1980: EIA, "Petroleum Statement, Annual (Final Summary)."

• 1981: EIA, "Petroleum Supply Annual."

• January—September 1982: EIA, "Petroleum Supply Monthly"

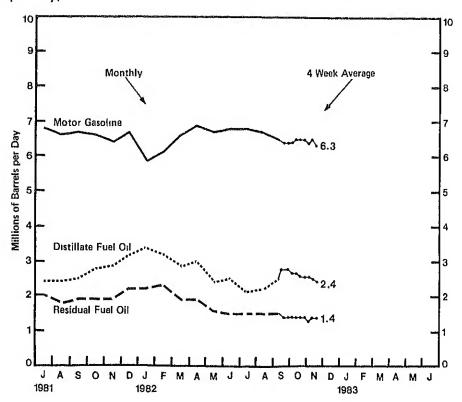
• October 1, 1982—Current Week: Four-Week averages based on EIA weekly data.

Total Petroleum Products Supplied for Domestic Use (Millions of Barrels per Day)



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980	18.9	18.8	17.4	16.8	16.2	16.2	16.0	15.8	16.6	17.0	16.7	18,4
1981	18.4	17.0	15.9	15,4	15,4	16.1	15.7	15.3	15,9	15.8	15.6	16.6
1982	15.9	15.9	15.6	16.0	14.8	14.9	14.8	14.8	14.9			
Average for Fou 1982	r-Week Peri 10/1	od Endin 10/8	g: 10/15	10/22	10/29	11/5	11/12	11/19	11/26			
	15.1	15.2	15.2	15.2	15.3	15.2	15.0	14.8	14.7			er framsen fil fra mel Me <u>n</u> gangan garban melalisi Fil Bagangan

<sup>1</sup> Projected. See Appendix C for explanation of derivation of values,
Source • 1980 EIA, "Petroleum Statement, Annual (Final Summary)."
• 1981 EIA, "Petroleum Supply Annual"
• January—September 1982 EIA, "Petroleum Supply Monthly."
• October 1, 1982—Current Week. Four week averages based on EIA weekly data
• Projections EIA, Office of Energy Markets and End Use (August 1982).



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980												
Motor Gasoline	6.3	6.6	6.4	6.8	6.7	6.7	6.7	6.6	6.5	6.7	6.2	6.6
Jet Fuel	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.0	1.1	1.0	1.0	1.1
Kerosene	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Distillate Fuel Oil	3.7	3.7	3.2	2.6	2.4	2.3	2.2	2.1	2.6	2.9	2.9	3.6
Residual Fuel Oil	3,1	3.1	2.7	2.4	2.2	2.3	2.3	2.3	2.4	2.2	2.5	2.7
Other	4.4	4.1	3.8	3.7	3.8	3.7	3,5	3.5	4.0	4.0	3.9	4.2
1981												
Motor Gasoline <sup>1</sup>	6.4	6,3	6.3	6.6	6.6	7.0	6.8	6.6	6.7	6.6	6.4	6.7
Jet Fuel	1,1	1.0	1.1	1.0	0.9	1.0	1.1	1.0	1.0	0.9	1,0	1.0
Kerosene	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Distillate Fuel Oil	4.1	3.4	2.9	2.5	2.4	2.4	2.4	2.4	2.5	2.8	2.9	3.2
Residual Fuel Oil <sup>1</sup>	2.9	2.5	2.1	1.9	1.8	2,0	2.0	1.8	1.9	1.9	1.9	2.2
Other	3.7	3.5	3.4	3.3	3.5	3,4	3.3	3.3	3.5	3.5	3.3	3.3
1982 Motor Gasoline <sup>1</sup> Jet Fuel Kerosene Distillate Fuel Oil <sup>1</sup> Residual Fuel Oil <sup>1</sup> Other Average for Four-We	5.9 1.0 0.2 3.4 2.2 3.2 ek Perioc	6.1 1.1 0.2 3.2 2.3 3.2 I Ending:	6.6 1.0 0.1 2.9 1.9 3.1	6.9 1.0 0.1 3.0 1.9 3.2	6.7 1.0 0.1 2.4 1.6 3.1	6.8 1.0 0.1 2.5 1.5 3.1	6.8 1.0 0.1 2.1 1.5 3.3	6.7 1.0 0.1 2.2 1.5 3.4	6.5 1.0 0.1 2.5 1.5 3.3			
1982	10/1	10/8	10/15	10/22	10/29	11/5	11/12	11/19	11/26			
Motor Gasoline <sup>1</sup>	6.4	6.4	6.4	6.5	6.5	6.5	6.4	6.5	6.3			
Jet Fuel	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.1	1.0			
Kerosene	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1			
Distillate Fuel Oil	2.8	2.8	2.7	2,7	2.6	2.6	2.6	R2.5	2.4			
Residual Fuel Oil <sup>1</sup>	1.4	1.4	1.4	1.4	1.4	1.4	1.3	R1.4	1.4			
Other	3.3	3.5	3.6	3.5	3.5	3.5	3.4	3.2	3,4			

R=EIA revision.

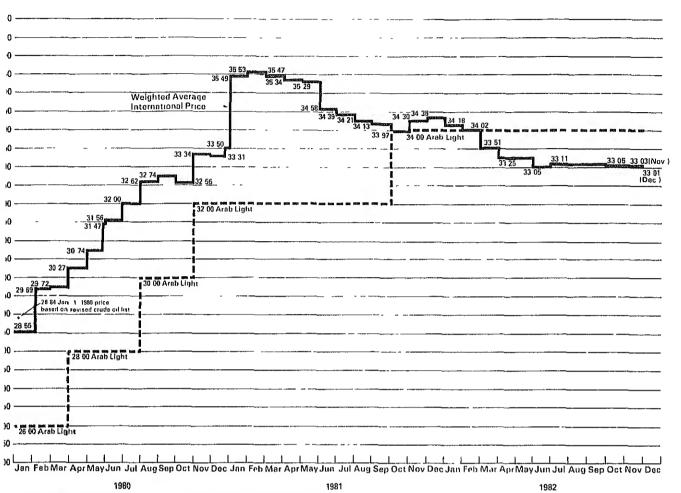
1 Products supplied statistics for 1981 and 1982 should not be compared with those for prior years because, in January 1981, EIA modified its definitions for motor gasoline, distillate fuel oil, and residual fuel oil. See Appendix D for further explanation.

Source: • 1980 EIA, "Petroleum Statement, Annual (Finel Summary)."

• 1981: EIA, "Petroleum Supply Annual,"

• January—September 1982: EIA, "Petroleum Supply Monthly."

• October 1, 1982—Current Week: Four-week averages based on EIA weekly data.



Note Beginning with the May 1, 1981 issue of the Wackly Petroleum Status
Report, the world crude oil price is based on a revised crude list
Additions Saudi Arabio's Arabian Henvy Dubai's Fatch, Egypts Sirez Blend and Mexico's Maya
Omissions Canadian Heavy
Replacements traq's Kirkuk Blend for traq's Basrah Light
The above graph shows an estimated world crude oil price based on this revised list
beginning January 1, 1981. An asterisk shows the January 1, 1980 price based on the revised
tist All other 1980 prices represent the old crude list before revisions

	Турс of							t Change Price From
Country	Crude/ API Gravity	Current Price	In Effect 1 Jan 82	In Effect 1 Jan 81	In Effect 1 Jan 80	In Effect 31 Dec 78	In Effect 1 Jan 80	In Effect 31 Dec 78
OPEC				<del></del>				
Saudi Arabıa	Arabian Light 34 <sup>0</sup> (Bench mark crude)	34 00	34 00	32 00	26 00	12 70	30 8	167.7
	Saudi Berri 390	34 52	35 40	33 52	27 52	13.23	25 4	160 9
	Arabian Heavy 28 <sup>0</sup>	31 00	31 00	31 00	25 00	12.02	24 0	157 9
Abu Dhabi	Murban 390	34 56	35 50	36 56	29.56	13,26	16.9	160 6
Dubai	Fatch 32°	33 86	33 86	35 93	27,93	12 64	21 2	167 9
Qatar	Dukhan 40 <sup>0</sup>	34.49	35 45	37 42	_29 42	13 19	17.2	161 5
(ran	Iranian Light 34 <sup>0</sup> Kirkuk 36 <sup>0</sup>	31,20	34 20	37 00	2 <sub>30 00</sub>	13,46	40	132 0
Iraq	Kirkuk 36 <sup>0</sup>	34 83	34 93	37 50	29 29	13,17	189	164 5
Kuwait	Kuwait Blend 310	32 30	32 30	35.50	27 50	12 22	17 5	164.3
Neutral Zone	Kuwait Blend 31 <sup>o</sup> Khafji 28 <sup>o</sup>	31 03	31 03	35,20	27.20	12 03	14 1	157.9
Algeria	Saharan 44 <sup>0</sup>	35 50	37.00	40 00	33 00	14 10	76	151.8
Nigeria	Bonny Light 370	35 50	36,50	40 00	29 97	15.12	18.5	134 8
Libya	Fs Sider 370	35,10	36 60	40 78	34.50	13 68	1.7	156 6
Indonesia	Minas 34°	34,53	35 00	35 00	27 50	13,55	25.6	154.8
Venezuela	Tia Juana 26 <sup>0</sup>	32.88	32.88	32.88	25.20	12 72	30 5	158 5
Gabon	Mandil 29.60	34 00	34.00	35 00	28 00	12 59	21 4	170 1
Ecuador	Oriente 30 <sup>0</sup>	32,50	34,25	40 06	33,50	12 35	30	163.2
Total OPEC <sup>3</sup>	NA	33,54	34.13	34.82	28.30	13,03	18.5	157.4
Non OPEC								
United Kingdom	Forties 36,5 <sup>0</sup>	33.50	36.50	39.25	29.75	14.00	12.6	139 3
Norway	Forties 36.5 <sup>0</sup> Ekofisk 42 <sup>0</sup>	34.25	37.25	40,00	32,50	14.20	5.4	141.2
Mexico	Mexican Light 320	32.60	35.00	38.50	32.00	13,10	1.6	148.1
n	Mexican Heavy 22°	25 00	26 50	34.50	28.00	NA	-10.7	NA
Egypt	Suez Blend 33 <sup>0</sup>	431.75	34,00	40.50	34.00	12,81	-6,6	147 9
Oman	Oman 36 <sup>0</sup>	34.00	35 00	37.50	30.26	13.06	12.4	160.3
Syria	Suwadiyah 250	30,00	30 00	36 03	31.39	11,64	-4.4	167.7
Malaysia	Suwadiyah 25 <sup>0</sup> Mirl 38 <sup>0</sup>	35.60	36,50	41.30	33,60	14.30	6.0	149.0
Brunei _	Saria 36.5 <sup>0</sup>	35.10	36,10	40 35	33.40	14.15	5.1	148.1
Brunei U.S.S.R.5	Export Blend 33 <sup>0</sup>	31 20	35,49	39.25	33.20	13.20	6.0	136.4
Total Non-OPEC 3	NA	31.77	34.35	38 54	31 94	13,44	0.5	136,4
Total World <sup>3</sup>	NA	33 01	34 18	35.49	28.84	13 08	14.6	152.4
United States 6	NA	32.51	34.15	36,69	29.35	13.38	10.8	143.0

NA-Not Applicable.

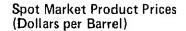
1 Official sales prices or estimated term contract prices, spot prices excluded
2 37c higher at 60 days' credit.
3 Average prices (FOB) weighted by estimated export volume
4 On 60 days' credit.
5 Average delivered cost to Northwest Europe.
6 Average prices (FOB) weighted by estimated import volume.
Source - DOE, Office of international Affairs, December 1, 1982.

• Platt's Oligram Price Report

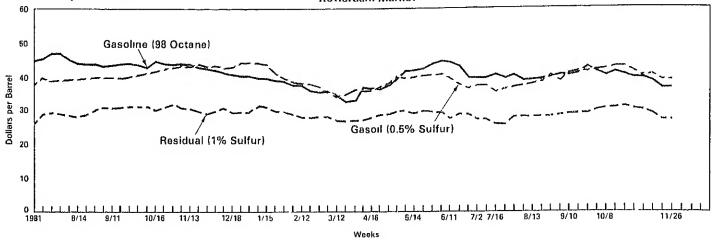
• Petroleum Intelligence Weekly.

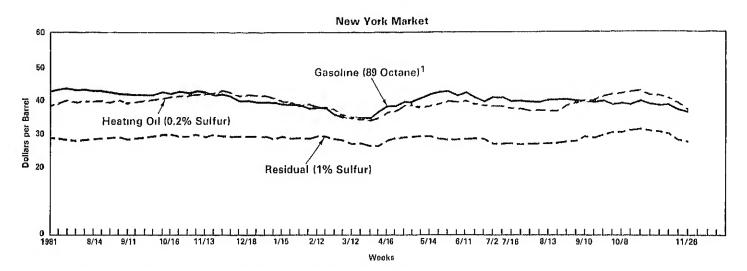
• Oil Buyers' Guide.

• Europe Oil Prices.



### Rotterdam Market





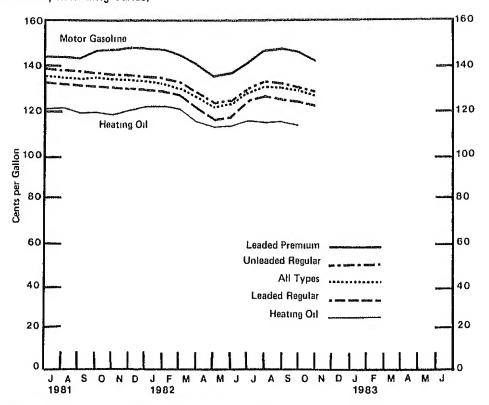
<sup>1</sup> The prices shown through September 25, 1981 are for 94 octane gasoline rather than for 89 octane gasoline.

Source: 
Oil Buyers' Guide, Weekly Oil Market Product Report

DOE, Office of International Affairs.

		Motor C	Sasoline	Gasoil/H	leating Oil <sup>1</sup>	Residu	al Fuel Oil <sup>2</sup>
		Rotterdam (98 Octane)	N.Y. <sup>3</sup> (89 Octane)	Rotterdam (0.5% Sulfur)	N.Y. <sup>4</sup> (0.2% Sulfur)	Rotterdam (1% Sulfur)	N.Y. <sup>3</sup> (1% Sulfur
981 Nov	6	44.20	42.71	43.23	41.69	30.48	29.75
	13	43.32	42.15	43.16	41.90	30,33	29.90
	20	42.79	41.54	43.70	41.90	29.65	29.90
	27	42.73	41.54	43.10	42.59	28.83	29.10
Dec	4	42.75	41.03	43.57	42.10	29.88	29.90
Dec	11	41.03	39.61	42.83	41.16	30.41	29.00
	18						
	24	41.03	39.82	43.16	41.48	29.20	29.00
	24	40.50	39.50	44.57	41.48	29.50	29.00
982 Jan	8	39.98	39.67	44.30	40.42	31.68	28.40
	15	38.68	38.72	43,57	39.90	30.78	29.00
	22	38.57	38.93	40.88	39.38	29.50	28.35
	29	38.22	38.30	39.21	38.22	29.73	28.70
Feb	5	37.22	37.67	38.40	38.54	28.68	28.50
	12	37.22	37.61	37.87	37.90	27.93	29.25
	19	35.93	37.61	37,87	37,80	27.93	29.25
	26	35.52	35.72	37.00	37.38	28.08	28,50
Mar	5	35.46	34.88	35.32	35.28	28.08	28.00
,,,,,,	12	34,41	34.57	34.38	33,60	26.95	27.00
	19	32.42	34.55	34.99	34.02	26.50	27.00
	26	32.83	34.52	36.13	34.06	26.65	26,25
Apr	2	36.64	36.54	35.52	34.54	26.80	26.25
Λþi	9	36.17	38.01	35.72	36.12	27.78	27.70
	16	36.64	38.22	36.66	36.54	28.53	28.50
	23	37.51	39.69	37.87	38.22	28.75	28.75
		39.57		39.68	38.32	29.43	29.00
M	30	41.68	39.40		37.80	29.43	29.25
May	7		40.53	38.81			
	12	41.85	41.87	39.21	38.32	29.73	29.50
	19	42.67	42.29	40.21	38.85	29.73	28.75
	26	43.79	42.61	40.35	39.69	29.43	28.35
Jun	4	44.37	41.68	40.55	39.48	29.05	28,35
	11	44.08	42.21	39.34	39.90	27.40	28.40
	18	43.08	40.66	37.60	38.64	28.60	28.50
	25	39.57	39.56	36.53	38.33	28.45	28.25
Jul	2	39.86	40.07	37.27	38.01	27.10	27.00
	9	39.86	40.07	37.27	38.01	27.10	27.00
	16	40.04	39.73	35.32	37,59	25.90	27.00
	23	39.57	39.84	36.13	37.38	25.53	26.80
	30	40.12	39.59	36.98	36.96	27.78	27.00
Aug	6	38.80	39.59	37.33	37.06	28.00	27.00
	13	38.45	40.00	37.60	37.80	27.85	27.00
	20	39.15	40.00	38.70	37.80	27.85	27.25
	27	39.86	40.05	40.28	38.32	27.85	27.75
Sep	3	40.56	39.84	38.46	39.48	28.38	28.00
•	10	40.39	39.69	41.02	39.58	28.68	29.25
	17	41.03	39 <i>.</i> 38	41.22	39.90	28.75	28.75
	24	42.61	39.38	41.22	41.26	28,90	29,60
Oct	1	41.03	38.54	41.96	41.58	29.88	30.25
	8	40.15	38.96	42.29	42.00	30.33	30.35
	15	41.03	38.74	42.96	42.42	30.48	31.00
	22	40.04	39.69	42.76	42.74	30.78	31.35
	29	39.39	38.96	41.42	41.37	30,26	30.75
Nov	5	39.80	38.45	39.88	41.37	29.95	30.50
1404	12	38.22	38.56	40.28	40.32	28.75	30.00
				38.81	38,85	26.88	28.00
	19	36.11	37.02			26.8 <b>8</b> 26.8 <b>8</b>	27.50
	26	36,28	36.33	38.87	37.06	∠0.0₫	27.00

<sup>1</sup> Refers to No. 2 Heating Oil
2 Refers to No. 6 Oil.
3 East Coast Cargoes
4 New York Harbor Reseller Barge Prices
Source • Oil Buyers' Guide, Weekly Oil Market Product Report.
• DOE, Office of International Affairs



Year/Product	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980												
Motor Gasoline												
Leaded Premium	114.9	123 2	127.7	129.2	129.5	130.0	130.7	131.0	130.4	130.1	129.9	131.0
Leaded Regular	108 6	115.9	120.2	121.2	121.5	121.7	121.6	121.0	119.7	118.8	118.8	119.7
Unleaded Regular	113.1	120 7	125.2	126.4	126,6	126.9	127.1	126.7	125 7	125.0	125.0	125.8
All-types	111.0	118.6	123.0	124.2	124.4	124.6	124.7	124.3	123.1	122.3	122.2	123,1
Residential Heating Oil	90.8	95.3	97.1	97.4	97.2	97.9	97.9	97.9	98.1	98.7	101.0	106.5
1981												
Motor Gasoline												
Leaded Premium	133 8	141.0	144.9	145.1	144.7	144.6	144.6	144.4	145.6	145.7	146.2	146.0
Leaded Regular	123.8	132.1	135 2	134.4	133.3	132.4	131.5	131.0	130.5	129.9	129.7	129.3
Unleaded Regular	129.8	138.2	141.7	141.2	140.0	139.1	138.2	137,6	137.6	137.1	136.9	136.5
All-types	126,9	135.3	138.8	138.1	137.0	136.2	135.3	134.8	135.8	135.3	135.1	134.8
Residential Heating Oil	114.4	123.4	125.5	123.9	122.7	120.9	121.0	119.4	119.7	118.8	120.8	122.0
1982												
Motor Gasoline												
Leaded Premium	145.6	143.8	140.7	136.8	137.9	140.8	145.0	445.0	1441	141 0		
Leaded Regular	128.5	126.0	120.6	114.8	116.6	124.2		145.8	144.1	141.3		
Unleaded Regular	135.8	133.4	128.4	122.5	123.7	130.9	126,3	125.4	123.6	121.9		
All-types	134.1	131.8	126.8	121.0	123.7	129.6	133.1	132.3	130.8	129.5		
Residential Heating Oil	122.0	120.7	115.3	113.2	114.3		131.8	131.0	129.5	128.0		
residential Freating On	122.0	120.7	110,0	110.2	114.3	116.2	115.8	115.9	P114.8			

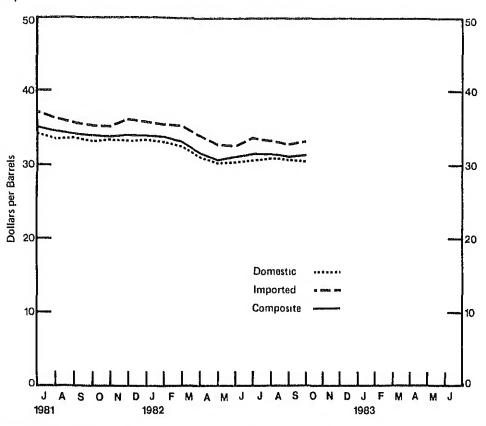
Note. Motor gasoline data include prices from self service stations. Beginning with September 1981, the Bureau of Labor Statistics has changed the weights used in the calculation of average motor gasoline prices. In the "all types" category gasohol is now included, and unleaded premium is weighted more fleavily.

Source • Motor Gasoline-Bureau of Labor Statistics. See definitions for description of survey.

• Residential Heating Oil—Through October 1980. Form EIA—9, "No. 2 Heating Oil Supply/Price Monitoring Report,"

November 1980 Forward. Form EIA—9A, "No. 2 Distillate Price Monitoring Report."

# Refiner Acquisition Cost of Crude Oil (Dollars per Barrel)



Year/Type	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
1980							*		······································			
Domestic	19,78	21,22	22.07	22.89	23.63	24.48	25.05	24.98	25.37	26.21	26.51	28.55
Imported	30.75	32.40	33,42	33,54	34.33	34.48	34.51	34,44	34.46	34.63	35.09	35.63
Composite	24.81	26.11	26.88	27.09	27.85	28.80	28.73	28.70	28.96	29.56	29.79	31.39
1981												
Domestic	32.71	36.27	36.97	35.58	35.21	34.20	33.76	33.79	33.47	33.48	33,49	33.51
Imported	38.85	39.00	38,31	38.41	37.84	37.03	36.58	35.82	35.44	35.43	36.21	35.95
Composite	34.86	37.28	37.48	36.58	36,11	35.03	34.70	34.46	34.11	34.07	34.33	34.33
1982												
Domestic	33,39	32.71	31.08	30,27	30.37	30.79	30.92	30.85	P30.71			
Imported	35.54	35.48	34.07	32.82	32.78	33.79	33.44		P33.02			
Composite	33.95	33.40	31.81	30.83	31.02	31.74	31 74		P31.39			

P=Preliminery
Source. • 1980: ERA Form 49, "Domestic Crude Oil Entitlements Program Refiners Monthly Report."
• January 1981 Forward Form EIA-14, "Refiners Monthly Cost Report."

# Weather Summary (Population Weighted Heating Degree-Days 1)

The weather for the nation, as measured by population-weighted heating degree-days from July 1, 1982 through November 28, 1982, has been 0.6 percent warmer than normal and 2.5 percent warmer than last year.

### U.S. Total Heating Degree-Days (Population Weighted)

				Percent	Change
	1982 This year	1981—82 Last year	Normal	This year vs. Last year	This year vs. Normal
July 1 - November 28	715	733	719	-2.5	-0.6
July 1 - June 30		4,967	4,695	*****	

<sup>1</sup> Hearing digree-days far a given location on a given day are the runther of diegrees that the mean temperature (average of daily minimum and maximum temperatures) that day is blown65°F. Hearing degree-days give a rough measure of the demand for hearing oil.

Source: • Nisponal Operational Attracephenic Administration, Department of Commerce.

• U.S. Census Bureau, 1981 Population Estimates.

### Appendix A: EIA Weekly Data: Survey Design and Estimation Methods

The Weekly Penaleum Reporting System (WARS) companies five at riveys. the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162), the "Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Amports Report" (EIA-165). The EIA weekly reporting system was designed to collect data similar to those collected under the manufility Junet Penaleum Reporting System (IPRS) and the manufility imports system. In the WPRS, educied petroleum companies report visitly deta to EIA on crude of and petroleum product stocks, refinery inputs and production, and crude of and penaleum product imports. On the Form EIA-161, companies report data on a custody basis. On the Form EIA-165, the importance of record reports each shipment entaing the United States. Our vestly data and the most recent importality data from the UPRS are used to estimate the published weekly totals.

#### Sample Flame

The sample of companies that report weekly in the WPRS was selected from the wavers of companies that report monthly in other the JPRS system or the IERA-80 system (for imports). All sampled companies report date only for facilities in the 50 States and District of Cultumina. The EIA-161 sample firame includes all petroleum refinedies in the United States and its temitomes, undustrial facilities that have counte oil distillation capacity and produce some refined petroleum products, and bulk terminate that this motor gestline. The EIA-162 sample firame includes all bulk terminal facilities in the United States and its temitomies that thave total bulk storage capacity of 50,000 branche or more, or that receive petroleum products by tanker, bage, or pipeline. The EIA-163 sample firame includes all petroleum product oppeline companies in the United States and its temitomes that transport refined petroleum products, and united states and instance. Pipeline companies that only transport matural gas inquide are not included in the EIA-163 firame. Only those pipeline companies which transport products covered in the weekly survey are included. The EIA-163 firame onesists of all trunk pipeline companies in the United States and its terminal operators, and all stores of 1,000 branche or more of course oil. The EIA-165 sample firame includes all importers of record of course oil and petroleum products into the United States and Puerto Rico.

#### Sampling

The sampling procedure weed for the weekly system is the out-off method. In the out-off method, companies are railed from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies with the total for the previous time period.

	Refiners (Refineries)	Brák Tenmissás	Pipelines	Crusde Oil Stock Holders	Importers
Wierkily Form	EIA-161	EIA-162	EIA-163	EIA-164	EIA-165
Monthly Frame Sites	186(347)	173	65	296	955
Wierkily Sample Stre	84(215)	93	65	111	61

### Collection Methods

Data are collected by mail, mailgram, telephone, Teles, and Telefax on a weekly bests. All canvasced firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company connections of the prior week's data are also entered.

### Estimation and languations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data. First, the current weekl's data for a given product reported by companies in that region are summed. ((Call this weekly sum,  $W_g$ ). Next, the most recent month's data for the product reported by those same companies are summed. ((Call thus monthly own,  $M_g$ ). Finally, let  $M_d$  be the sum of the most recent month's data for the product as reported by all companies. Then, the ownent weekl's ratio estimate for that product for all companies,  $W_g$ , is given by:

This procedure is used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by numbing over establishment types.

Wheeldly imports dista are thighly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values companied from monthly dista. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

Simos M<sub>ij</sub>, tihe total of the most recent month's data, includes companies which may not have responded weekly, the ratio method of estimation automatically imputes for monresponse.

### Response Rates

The response rate as of the day after the filling deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent flor the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the mext day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The morresponse rate for the published estimates is usually between 2 percent and 5 percent.

# Appendix B: Interpretation and Derivation of Average Inventory Levels

The national inventory (stocks) graphs for total petroleum products, crude oil, motor gasoline, distillate fuel oil, and residual fuel oil in this publication include features to assist in comparing current inventory levels with past inventory levels and with judgments of critical levels. Methods used in developing the everage inventory levels and minimum operating levels are described below.

#### Average Inventory Levels

The charts displaying Inventory levels of total petroleum products (p. 7), crude oil (p. 7), motor gasoline (p. 9) distillate fuel oil (p. 11), and residuel fuel oil (p. 13) provide the reader with actual inventory data compared to an "average range" from the most recent 3-year period running from January through December or from July through June. The ranges are updated every six months in March and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a longer time period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (I.e., unchanging from year to year) and additive (I.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels). The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors for total petroleum (crude and products), crude oil, distillate fuel oil, and residual fuel oil were derived using monthly data from 1975-1981. For motor gasoline, the seasonal factors were based on monthly data from 1975-1976 and 1978-1981. In 1977, monthly stock levels of motor gasoline stayed at the same high level for the entire year. Since there was virtually no seasonal behavior in motor gasoline stocks that year, 1977 was not used in the determination of seasonal patterns for motor gasoline stocks.

After seasonal factors are derived, data from the most recent 3-year period (January-December or July-June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36-months is calculated adjusting for extreme data points. The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The values of the upper and lower curves are presented in the table below.

# Values of Average Ranges in Inventory Graphs (Millions of Barrels)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
						Lower F	tange					•
Total Petroleum Crude Oli Motor Gasoline Distillate Fuel Oll Residual Fuel Oll	1185.5 347.0 253.8 161.6 71.0	1143.1 345.5 260.1 132.0 67.9	1138.5 354.0 256.0 120.3 64.8	1149.3 358.2 245.1 121.5 66.1	1163.9 355.5 235.8 130.3 69.4	1175.9 354.4 230.9 145.0 66.7	1204.2 349.2 229.0 167.5 70.2	1219,5 344,4 227,6 187,7 70,3	1244.2 344.8 229.1 206.0 76.1	1250.6 352.7 221.1 212.5 79.1	1252.9 351.4 226.6 213.0 79.5	1209.4 341.8 237.1 191.1 77.6
						Upper F	lange					
Total Petroleum Crude Oil Motor Gasoline Distillate Fuel Oil Residual Fuel Oil	1301.2 377.8 279.7 205.5 88.5	1258.8 376.3 286.1 175.9 85.4	1254.2 384.8 282.0 164.2 82.4	1265.0 388.9 271.0 165.4 83.6	1279.6 386.2 261.8 174.2 86.9	1291.6 385.1 256.8 188.9 84.3	1319.9 379.9 255.0 211.4 87.8	1335.3 375.1 253.5 231.6 87.8	1359.9 375.5 255.0 249.9 92.6	1366.3 383.5 247.1 256.4 96.7	1368.6 382.2 252.6 256.9 97.0	1325.1 372.5 263.0 235.0 95.1

### Minimum Operating Levels

The lines labeled "minimum operating inventory" for crude oil, motor gasoline, distillate fuel oil, and residual fuel oil were derived by the National Petroleum Council from a 1978 survey of petroleum refineries, bulk terminal operators, and petroleum pipelines. The Council also surveyed industry experts. The findings were published in "Petroleum Storage and Transportation Capacities" in December 1979. In that document, minimum operating inventory is described as follows:

inventory below this level is not available for consumer use because it is required to fill pipelines, tank bottoms and refinery process equipment; facilitate blending to meet the product specifications; prepare for planned maintenance periods; handle unavoidable but anticipated emergencies; and sustain uninterrupted operations. Runouts and shortages would begin to occur if inventory were to fall below this level.

The values were: crude oil -- 290 million barrels; motor gasoline -- 210 million barrels; distillate fuel oil -- 125 million barrels; and residual fuel oil -- 60 million barrels.

Since the National Petroleum Council did not derive a minimum operating inventory level for total petroleum stocks, the line labeled "observed minimum" is based on the lowest inventory level observed during the same 3-year base period that was used in the derivation of the average inventory levels. For crude oil, motor gasoline, distillate fuel oil, and residual fuel oil, the observed minimum and the minimum operating inventory are quite close. Hence, it is thought that the observed minimum is a reasonable proxy for the minimum operating inventory.

### Appendix C: Projection of Products Supplied from the Short Term Energy Outlook

The projections of "high" and "low" total petroleum demand, shown in the WPSR as total product supplied, are from the Office of Energy Markets and End Use, Short-Term Energy Outlook, August 1982 (Outlook).

Three forecast cases are presented in the <u>Qutlook</u> based on differing assumptions about the world price of crude oil. In case 1, it is assumed that prices decrease to an effective OPEC marker crude price of \$28 per barrel by the end of 1982 and remain at the level in 1983. In case 2, imported crude oil prices are stable at the July 1982 level through 1982, then rise at the U.S. Inflation rate in 1983. In case 3, crude oil prices rise at 2 times the U.S. rate of inflation in 1982 and 3 times the Inflation rate in 1983. Macroeconomic inputs are based on a forecast from Data Resources, Inc. (DRI CONTROL 072782).

The "high demand" case is formed by adding the case 1 (low price) forecast of total demand to the square root of the sum of the squares of Increases in demand resulting from the following changes in key variables: (1) a 5 percent increase in heating degree-days over the base case, (2) a 7 percent increase in cooling degree-days over the base case, (3) an increase in income over the base case that reflects average forecast errors over a 3-year period, and (4) a 5.5 percent decrease in new car efficiency from the base case in 1982 and 12.6 percent decrease from the base case level in 1983. The "low demand" case is formed by subtracting from the case 3 (high price) forecast the square root of the sum of the squared decreases in demand resulting from decreases from the base case for heating degree-days, cooling degree-days, and income; and a 9.1 percent increase from the base case new car efficiency in 1982 followed by a 17.1 percent increase from the base case in 1983.

For detailed information on the assumptions used in the forecast methodologies, please refer to the published report, Short-Term Energy Outlook, August 1982.

Copies of the report are available from:

National Energy Information Center Room 1F-048, Forrestal Building 1000 Independence Avenue, S.W. Washington, D.C. 20585 Telephone 202-252-8800

### Appendix D. Changes in Reporting of Monthly Data—January 1981

In January 1981, new forms were introduced for the collection of monthly date in the Junta Pernalism Haporting System. At that time, several major changes were made in the reporting of motor genoline, districte first oil, and rendual first oil. The reporting changes were made to describe industry operations more accurately. However, because of the changes outlined below, the mountally information shown in the WPSR for 1981 and 1982 should not be directly compared to unformation for prior years. The seminareted by the January 1981 changes are products supplied and production of motor genoline, distribute first oil, and residual fixed oil.

#### Motor Gasolina Changas

Prior to 1979, the EIA product supplied series for motor goodine was consistently lawer than the gasoline sales information collected by the Federal Highway Administration. There were two major reasons for the difference. First, reducing operations particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately disculbed on the EIA survey forms. Second, a large amount of gasoline was being produced away from refinences at "downstream blending stations" to take advantage of provisions in regulations governing the amount of feed that could be added. These blending stations over most reporting gasoline production to the EIA prior to January 1981.

In January 1981, blending stations were added as reporters of motor gasoline production, and the reporting forms and definitions were changed to reflect more accurately the flow of products at refineries. For a further description of these changes and an indication of the magnitude of the difference between the old- and new-basis series, see Note 4 in the "Explanatory Notes" of the "Petroleum Supply Monthly."

### Distillate and Residual Fuel Oil Changes

The monthly statistics on production and product supplied of distillate and residual fixel oxil for January 1981 forward neffect actual reported data even though these fuels can be further processed after initial distillation. The figures for prior years were adjusted to reflect the renaming or reclassifying of distillate and residual fuel oils as unfinished oils. Reclassification of these fuels might occur when a refiner ships a distillate or residual fuel oil to another refinery or to a bulk storage facility and the receiving facility, untending the oils to be processed further, reports the receipt of this fuel as a receipt of unfinished oils. Before January 1981, production statistics for distillate and residual fuel oils were adjusted to compensate for this problem on the basis of the difference between reported receipts and shipments of unfinished oils. Of the difference, two-thirds was allocated to distillate and one-third to residual. This adjustment was dropped in January 1981. Instead, the production statistics and products supplied estimates more reflect the data as reported. Monthly figures for total petroleum product supplied will not be affected by the change, however, because off am adjustment for "reclassified" product now shown in the monthly balance. The adjustments made im 1980 are shown in the table below. For further information about these changes, see Note 4 of the "Explanatory Notes" in the "Petroleum Supply Monthly,"

Adjusted and Unadjusted Production of Distillate and Residual Feet Oils by Month for 1980 (Thousand Barrels per Day)

	•	Distillate Feel Cit	li .		Residual Fool Of	
Month	Adjusted	Unadjusted	Oifference	Adjusted	Uvadjunted	Difference
January	3,013	3,093	80	1,771	1,812	41
February	2,766	2,888	122	1,773	1,836	63
March	2,557	2,690	133	1.584	1.652	68
April	2,460	2,554	94	1.595	1.643	48
May	2,474	2,610	136	1.509	1.579	70
June	2,646	2,721	75	1.575	1,613	38
July	2,689	2,783	94	1.480	1.528	48
August	2,461	2.582	121	1.444	1.506	62
September	2,686	2,726	40	1.495	1.516	21
October	2,589	2.650	61	1.512	1.543	31
November	2,703	2.823	120	1.579	1.641	652
December	2,891	3,052	161	1,660	1,743	83
Average	2,661	2,764	103	1.580	1.634	54

Source: EIA, "Petroleum Supply Monthly," March 1982.

### Appendix E: Calculation of World Oil Prices (page 19)

The weighted average international price of oil, shown in the "Highlights" and on page 19, is an average calculated using specific crude oil prices weighted by the estimated crude oil export volume for each oil-producing country. To develop the table shown on page 19, a list of major oil producing/exporting countries was chosen. For each country, the official selling price of one or more representative crude oils was determined by investigating a number of industry publications (i.e., "Oil Buyers' Guide," "Platt's Oilgram Price Report," "Petroleum Intelligence Weekly," and "Europe Oil Prices") and by contacting oil market analysts.

Then, the appropriate crude oil volumes to be used as weighting factors for each country were determined. These volumes are estimates based on a number of sources which provide data on production, consumption, and exports for these countries. Export volumes for a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors. After the export volumes had been determined, simple mathematical weighted averages were calculated to arrive at the "Total OPEC," "Total Non-OPEC," and "Total World" prices

The average United States (FOB) import price is derived by the same basic procedure as the world oil price, that is, taking the representative official crude oil price of a specific crude oil from a particular country and weighting this price by a certain volume of crude oil. In this case, the weighting factors are the volumes of crude oil imported into the U.S. from pertinent countries. Import volumes from a number of smaller producing/exporting countries, not listed in the table, are included in the weighting factors.

Both the import and export volumes are preliminary. Due to their origin, these estimates cannot be fully verified. These volumes are updated monthly, or more frequently when changes in all market conditions make updating appropriate.

### Definitions

- Barrels throughout the report are 42-gallon barrels
- Crude Oil Inputs The total crude oil put into processing units at refineries. Crude oil inputs are a measure of the performance level of refineries and give an indication of the quantity of raw material actually being made into products such as gasoline, distillate fuel oil, and residual fuel oil.
- Distillate Fuel Oils (No. 1, 2, and No. 4 fuel oils and No. 1 and No. 2 diesel fuels) are light fuel oils used primarily for home heating, as a diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and for electric power generation
- EIA Weekly Data. These are preliminary figures based on data supplied to the EIA by selected petroleum companies, published figures include estimates for other, non-sampled companies based on currently available monthly data. Weekly data indicate broad trends such as increases or decreases in demand or production.
- Imports are defined in this report as gross imports Imports of crude oil do not include imports to the Strategic Petroleum Reserve. Imports of minor products ("other oils"), as shown on page 15, include aviation gasoline, kerosene, unfinished oils, liquefied petroleum gases, plant condensate, petrochemical feedstocks, lube oils, waxes, special naphthas, coke, asphalt, and other miscellaneous oils.
- Monthly Data for 1980 are from EIA, Energy Data Reports, "Petroleum Statement, Annual (Final Summary)." 1981 data are from the "Petroleum Supply Annual;" 1982 data are from the "Petroleum Supply Monthly." Information on stocks, product supplied, and production of refined products are collected from a universe of refiners, operators of bulk terminals, and pipeline operators. Companies supply monthly data after their records are finalized.
- Motor Gasoline. Included are finished leaded gasoline, finished unleaded gasoline, blending components in the gasoline range, and gasohol. This definition applies for data beginning with the week of January 30, 1981.
   Gasohol was not included in the motor gasoline definition before that date. Motor gasoline imports do not include gasohol.
- Refinery Capacity Utilization is the ratio of the total amount of crude oil, unfinished oils, and natural gas plant liquids run through crude oil distillation units to the operable capacity of these units. In the period 1979-1981 the refinery capacity utilization for all U.S. refineries ranged between 87 percent and 66 percent. The ratio for an individual refinery may fluctuate much more depending on the type of crude and other raw materials processed, the type of products produced, and the operating conditions of the refinery.
- Retail Motor Gasoline Prices. The motor gasoline prices shown are calculated monthly by the Bureau of Labor Statistics (BLS) in conjunction with the construction of the Consumer Price Index (CPI). These prices are collected in 85 urban areas selected to represent all urban consumers—about 80 percent of the total U.S. population. The service stations are selected initially, and on a replacement basis, in such a way that they represent the purchasing habits of the CPI population. Service stations in the current sample include those providing all types of service (i.e., full-, mini-, and self-service).
- The refiner acquisition cost of crude oil is the average price paid by refiners for crude oil booked into their

- refineries in accordance with accounting procedures generally accepted and consistently and historically applied by the refiners concerned. Domestic crude oil is that oil produced in the United States or from the outer continental shelf as defined in 43 USC Section 1131, Imported crude oil is either that oil reported on Form ERA 51, the "Transfer Pricing Report," or any crude oil which is not domestic oil Prices do not include price of unfinished oils or SPR.
- Residual Fuel Oils (No 5 and No. 6 Fuel Oils) are heavy oils used primarily for electric power generation, for industrial and commercial space heating, as a ship fuel, and for various industrial uses
- Stock figures shown here are for those stocks held at refineries, in pipelines, and at bulk terminals with a capacity over 50 thousand barrels. Stocks held by product retailers and resellers, as well as tertiary stocks held at the point of consumption, are excluded. Stocks of individual products held at gas processing plants are excluded. All plant stocks were included in "Other Oils" and "Total"
- Stock Change (Refined Products) The product stock change shown on the U.S. Petroleum Balance Sheet for the current 4-week period is calculated in the following way. an average daily stock change is calculated for major refined products (i.e., all actual reported stocks), this stock change is added to an estimate for minor product stock change based on historical monthly data, a daily average stock change for refined product stocks for the 4 week period is then calculated. To calculate minor product stock change, the stock levels shown for other oils in the stock section of the balance sheet are used These other oils stock levels are derived by; 1) computing an average daily rate of stock change for each month based on monthly data for the past six years, 2) using this daily rate and the minor stock level from the most recent monthly publication to estimate the minor product stock level for the current period
- Product Supplied is a calculated value computed for specific products by adding domestic production plus net imports (imports less exports), less the net increase in primary stocks. Total Products Supplied is calculated as inputs to refineries, plus estimated refinery gain, plus other hydrocarbon input, plus product imports, less product exports, less the net increase in product stocks.
- The United States encompasses, for the purpose of this report, the 50 states and the District of Columbia Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. totals
- Unaccounted-for crude oil is a term which appears in U.S. Petroleum Balance table. It reconciles the difference between data (or estimates) about supply and data (or estimates) about use. Its value can be positive or negative since it is a balancing term. As it appears in the monthly publications, it reflects the accuracy of the reported data on crude oil imports, production, stocks, refinery input, losses, exports, and transfers (crude oil burned directly as fuel oil). It reflects the quality of the estimates as well as the accuracy of the reported data. Because the unaccounted-for crude oil figure reflects the accuracy of reported and estimated figures, one would expect the figure to be larger in balances using preliminary or estimated data and smaller in balances using the final data. In fact, the published figures confirm this expectation. In the WPSR, fourweek averages for the previous year are interpolated from final monthly data, so that the unaccounted-for crude oil value for the previous years is considerably smaller than that for the current period.